



State of New Hampshire  
Department of Health and Human Services  
Division of Public Health Services



## **School, Day Camps, Day Care Centers and West Nile Virus and Eastern Equine Encephalitis**

### **Are children at risk for becoming infected with WNV or EEE while attending school?**

The mosquitoes that most commonly carry WNV/EEE are generally more active during evening, nighttime and dawn hours, but they may be present at any time of day. Therefore, children who attend school during the daytime are at minimal risk for exposure, but as a precaution schools are being asked to help protect schoolchildren by removing, screening or mechanically altering outside objects such as empty buckets, old tires, and any other containers in which water accumulates to prevent mosquitoes from breeding.

### **Can children go on outdoor field trips and play outdoors during the summer?**

Since mosquitoes are not generally active during daytime, children who go on trips during the daytime are at minimal risk for exposure. However, if the field trip is to an area where there are weeds, tall grass, bushes or known or suspected high mosquito activity, or if the trip is at dusk, during the evening, night time or at dawn, students should be advised to wear long pants, long sleeves and socks to minimize the possibility of skin exposure to mosquitoes.

### **Are children or infants at greater risk for becoming infected with WNV/EEE?**

Children, including young children, are not at greater risk than other individuals for becoming infected with WNV/EEE. Anyone can become infected with these viruses if bitten by an infected mosquito, but children will need an adult's help in taking precautions against mosquito bites. The same precautions apply to children in school settings as in home settings.

### **What can I do to reduce my risk of becoming infected with WNV or EEE?**

From June to October, when mosquitoes are most active, take the following precautions:

- Protective clothing such as long pants, long-sleeved shirts, and socks should be worn if outside during evening, nighttime, and dawn hours, the time when mosquitoes are most active, and at other times when mosquitoes are biting.

- If outside during evening, nighttime, and dawn hours, or whenever mosquitoes are biting, consider the use of an effective insect repellent.
- **Use repellents according to manufacturer's directions.**
  - Repellents containing DEET (N, N-diethyl-methyl-meta-toluamide) have been proven effective. No more than 30% DEET should be used on adults and children.
  - The American Academy of Pediatrics (AAP) Committee on Environmental Health has updated their recommendation for use of DEET products on children, citing: "Insect repellents containing DEET with a concentration of 10% appear to be as safe as products with a concentration of 30% when used according to the directions on the product labels." AAP recommends that repellents with DEET should not be used on infants less than 2 months old.
  - Repellents containing Picaridin (KBR3023) or oil of lemon eucalyptus (a plant based repellent) provide protection similar to repellents with low concentrations of DEET. Oil of lemon eucalyptus should not be used on children under the age of three years.
  - Do not allow young children to apply repellent themselves.
  - Do not apply repellent directly to children. Apply repellent to your own hands and then put it on the child's exposed skin.
  - Avoid putting repellent on the hands of children or near their eyes and mouth.
  - Do not spray directly on the face, spray into the hands first and then apply to the face.
  - Do not apply to cuts, wounds, or irritated skin.
  - Do not use under clothing.
  - Do not spray repellent containing products in enclosed areas.
  - Avoid prolonged or excessive use of repellents. Use sparingly to cover exposed skin and clothing.
  - Wash all treated skin and clothing after returning indoors.
  - Store repellents out of reach of children.
- Vitamin B, ultrasonic devices, incense, and bug zappers have not been shown to be effective in preventing mosquito bites.

More information on mosquito repellents is available for physicians in the following technical articles.

Mark S. Fradin, MD, and John F. Day, PhD. Comparative Efficacy of Insect Repellents against Mosquito Bites. New England Journal of Medicine, Volume 347:13-18, July 4, 2002 Number 1.

D.R. Barnard and R.D. Xue. Laboratory Evaluation of Mosquito Repellents Against *Aedes albopictus*, *Culex nigripalpus*, and *Ochlerotatus triseriatus* (Diptera: Culicidae). Journal of Medical Entomology, Volume 41(4):726-30, July 2004.

### **What can I do around the school or camp to help reduce exposure to mosquitoes?**

Mosquitoes lay their eggs in standing water. Weeds, tall grass, and bushes provide an outdoor home for the adult mosquito commonly associated with West Nile virus. Mosquitoes can enter any building through unscreened windows or doors, or broken screens. Here are some steps you can take:

- Make sure that doors and windows have tight-fitting screens. Repair or replace all screens in your home that have tears or holes.
- Remove all discarded tires from your property. The used tire has become the most important domestic mosquito-breeding habitat in this country.
- Do not allow water-holding containers. Dispose of tin cans, plastic containers, ceramic pots, or similar water-holding containers. Do not overlook containers that have become overgrown by aquatic vegetation.
- Drill holes in the bottom of recycling containers that are left out of doors. Drainage holes that are located on the sides collect enough water for mosquitoes to breed in.
- Make sure roof gutters drain properly. Clean clogged gutters in the spring and fall.
- Tightly screen "rain barrels" to ensure mosquitoes can't deposit eggs in or on water.
- Clean and chlorinate swimming pools and outdoor hot tubs. If not in use, keep empty and covered.
- Drain water from pool covers.
- Aerate ornamental pools or stock them with fish. Water gardens are fashionable but become major mosquito producers if they are allowed to stagnate.
- Turn over wheelbarrows and change water in birdbaths at least twice weekly. Both provide breeding habitat for domestic mosquitoes.
- Eliminate any standing water that collects on your property. Use landscaping as needed. Mosquitoes will develop in any puddle that last more than 4 days.
- Remind or help neighbors to eliminate breeding sites on their properties.

**If a child is bitten by a mosquito at school, should he or she be tested for WNV/EEE?**

No. Most mosquitoes are not infected with WNV or EEE. Even in areas where mosquitoes do carry these viruses, very few mosquitoes - less than 1% - are infected. The chances that one bite will be from an infected mosquito are very small.

**If a child is bitten by an infected mosquito, will he or she get sick?**

Most people, including children, who are bitten by mosquitoes carrying WNV or EEE will experience no symptoms or very mild illnesses.

**Should medical attention be sought if a school official thinks a child has become infected with WNV/EEE?**

Even though the chances are slight that a child could become infected with WNV/EEE, parents or caregivers should contact a doctor immediately if a child develops symptoms such as high fever, confusion, muscle weakness, severe headaches, stiff neck, or if his or her eyes become sensitive to light.

**For more information,  
call the New Hampshire Department of Health and Human Services,  
WNV/EEE Information line at  
1-866-273-NILE (6453)**

**For health care providers with clinical questions  
or to report human suspect or probable cases  
please contact the Bureau of Communicable Disease Control at  
1-800-852-3345 ext. 4496 or  
1-603-271-4496**